REMARKS

Claim 1-29 and 35-48 are pending. Claims 1, 15, and 47 are in independent form.

Rejections under 35 U.S.C. § 101

In the Office action mailed July 9, 2009 reopening prosecution, the rejections of claims 15-28, 36, and 42-46 under 35 U.S.C. § 101 were withdrawn. Applicant acknowledges the withdrawal of these rejections with appreciation.

Rejections under 35 U.S.C § 103(a)

Claim 1 was rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,724,571 to Woods (hereinafter "Woods") and U.S. Patent Publication No. 2003/0115191 to Copperman et al. (hereinafter "Copperman").

As amended, claim 1 relates to a method for extracting information from electronic documents using a computer server system having one or more processors. The method includes receiving, at the server system, a request for information that includes a definition of a concept list comprising an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept, and a target scope that characterizes a size of document regions to which the concept list is to be applied, receiving, at the server system, a definition of an extraction rule, the server system determining a target score for document regions of the article, wherein the score represents how well document regions of the size to which the concept list is to be applied relate to the concept list, the server system applying the extraction rule to the article to extract document regions characterized by the extraction scope from the article, and outputting the extract from the server system for the client device in response to the request for information. The application of the

extraction rule is based on the determined target score. The extraction rule definition comprises an extraction scope that characterizes document regions to be extracted. The request for information and the target scope are received from a user interacting with the server system through a client device connected to the server system via a network.

As discussed numerous times previously, the rejection of claim 1 glosses over a fundamental distinction between the recited subject matter and the content of Woods and Copperman. In particular, claim 1 relates to requests for information and responses to such requests. The requests for information include a definition of a concept list comprising an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept, and a target scope that characterizes a document region to which the concept list is to be applied.

In contrast, requests for information in Woods and Copperman do not include these features. For example, Woods' requests for information are understood to be a single "search query phrase (consisting of one to many terms)." *See Woods*, col. 5, line 67-col. 6, line 3. *See also Woods*, col. 3, line 28-35 (describing his system as "particularly effective" at handling short (i.e., two to six word) search queries).

In Copperman, the requests for information can be developed during an iterative, guided search process. In particular, Copperman describes an iterative process in which a search query is received and concepts/topics are matched to the search query. *See, e.g., Copperman*, para. [0054]. *See also id.*, para. [0051] (describing that terms in a user query that are evidence of concepts are first extracted and then used as the basis for guided search routines). Copperman's FIGS. 9A-9E illustrate one example of the matching of concepts/topics to a search query in Copperman's iterative, guided search process. *See, e.g., id.*, paras. [0081], [0017]-[0021]. As shown in, e.g., FIG. 9A, a textual search query is first received from a user. *See, e.g., id.*, para. [0081]. As shown in, e.g., FIG. 9C, the

response to the search query can include results that match a "primary group feature" that was "spotted" in the terms of the search query, as well as "related features." As best understood, Copperman's features are terms or phrases. *See id.*, para. [0052]. The "related features" can be used to narrow the scope of the search and reduce the number of documents "in play." *See, e.g., id.*, paras. [0054], [0081]. Thus, the requests for information in Copperman are an initial search query along with any subsequently selected "related features" that narrow the scope of the initial search query.

Therefore, neither Woods' single search query phrase, nor Copperman's initial search query and any subsequently selected "related features," describe or suggest requests for information that include a definition of a concept list comprising an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept, and a target scope that characterizes a document region to which the concept list is to be applied, as recited in claims 1 and 15. Lacking such requests, Woods and Copperman also fail to describe or suggest responding to such requests, as recited in claim 1.

The present amendments to claim 1 further highlight the deficiencies of the present rejection. For example, claim 1 recites that the request for information is received at a server system from a user interacting with the server system through a client device connected to the server system via a network. Although Woods' single search query phrase and Copperman's initial search query and any subsequently selected "related features" are received at a server system, other features in Woods and Copperman are not received as claimed. For example, in the Response to Arguments section of the July 9, 2009 Office action, the Examiner contends that "Woods in view of Copperman (particularly Copperman) teaches 'a user submit a search query defined by concepts and the relationship between those concepts'" and points to the following excerpts:

A: Woods, column 5 lines 7-14, i.e., semantic network of terms and concepts and a variety of morphological, taxonomic, and semantic entailment relationships;

B: Woods, column 5 lines 32-34, i.e., relationships between more general and more specific terms;

C: Copperman, Paragraph 0132;

D: Figure 2 of Copperman; Particularly note Paragraph 0037-0038;

E: Figure 6, Paragraph 0061 of Copperman. *See Office action mailed July 9, 2009*, p. 27-28.

None of these excerpts describe or suggest requests for information, much less requests for information received from a user interacting with the server system through a client device connected to the server system via a network, as recited.

For example, Woods' term/concept relationship network 110 (described in excerpt A) is stored at a memory into which search queries are input. *See, e.g., Woods*, FIG. 1, col. 4, line 11-12. *See also Woods*, col. 4, line 66-67 (describing that term/concept relationship network 110 is used to support subsequent query operations). Hence, Woods' term/concept relationship network 110 is not part of a request for information, much less received from a user interacting with the server system through a client device.

As another example, Woods' generator store 85 (described in excerpt B:) is a portion of memory 30 where a processor 20 temporarily stores information generated during the course of a query response. *See, e.g., Woods*, FIG. 1, col. 4, line 33-34. Hence, Woods' generator store 85 is not part of a request for information, much less received from a user interacting with the server system through a client device.

As yet another example, the "ranking and/or display of related features 835" described in Copperman's para. [0132] (i.e., excerpt C:) is also does not describe or suggest the recited request for information—namely, a request for information that includes a definition of a concept list comprising an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept. Instead, the display of related features 835 is part of an initial response to a request for information, namely, a search query. *See, e.g., Copperman,* para. [0127]. Moreover, the ranking and/or display of related features 835 is not received from a user interacting with the server system through a client device connected to the server system via a network, as recited.

As yet another example, Copperman's knowledge map 200 (described in excerpt D:) is part of a system 400 for assisting a knowledge engineer in associating intelligence with content. *See, e.g., Copperman*, FIG. 4, para. [0043]. Hence, Copperman's knowledge map 200 is not part of a request for information, much less received from a user interacting with the server system through a client device.

As yet another example, Copperman's primary groups and derived groups (described in excerpt E:) are part of a organizational schema 530. *See, e.g., Copperman*, FIG. 4, para. [0052]. Organizational schema 530 is not part of a user query. *See, e.g., Copperman*, FIG. 5A. Hence, Copperman's primary groups and derived groups are not part of a request for information, much less received from a user interacting with the server system through a client device.

Thus, none of the elements identified in the rejection is a request for information, much less one that is received from a user interacting with a server system through a client device. Indeed, many of the elements would appear practically unwieldy to include in a request for information and unlikely to originate with a user. For example, Woods' term/concept relationship network 110 and Copperman's knowledge map 200 are understood to be relatively large databases of information.

There is no reason to believe that it would have been obvious for one of ordinary skill to have included either Woods' term/concept relationship network 110 or Copperman's knowledge map 200 in a request for information received from a user interacting with a server system through a client device.

If the Examiner persists in the position that the elements described in any one of these various excerpts is a request for information and received from a user interacting with the server system through a client device, applicant respectfully requests that the basis for this position be explained in sufficient detail to allow Applicant to judge the propriety of continuing prosecution. *See* 35 U.S.C. § 132; 37 C.F.R. § 1.104(2).

In the absence of such a showing, for the reasons discussed above and in the appeal brief filed July 7, 2008, Applicant respectfully submits that even if Woods and Copperman were combined, one of ordinary skill would not arrive at the recited subject matter. Claim 1 is thus not obvious over Woods and Copperman. Applicant thus respectfully requests that the rejections of claim 1 and the claims dependent therefrom be withdrawn.

Claim 15 was rejected under 35 U.S.C. § 103(a) as obvious over Woods and Copperman.

Claim 15 relates to an article for extracting information from an electronic document using a computer server system having one or more processors. The article comprises one or more computer-readable data storage media containing program code operable to cause one or more machines of a server system to perform operations. The operations comprise receiving, from a user, a request for information that includes a definition of a concept list comprising an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept, and a target scope that characterizes a size of document regions to which the target rule is to be applied, receiving, from

the user, a definition of an extraction rule, wherein the extraction rule definition comprises an extraction scope that characterizes document regions to be extracted, determining a target score for document regions of the article, wherein the score represents how well document regions of the size to which the concept list is to be applied relate to the concept list, applying the extraction rule to the article to extract document regions characterized by the extraction scope from the article, wherein the application of the extraction rule is based on the determined target score, and outputting the extract in response to the request for information for use by a client device.

As discussed above, neither Woods nor Copperman describe or suggest a request for information that includes a definition of a concept list comprising an origin concept, a relationship between the origin concept and an evaluated concept. Indeed, many of the elements in Woods nor Copperman pointed to in the rejection would appear practically unwieldy to include in a request for information.

If the Examiner persists in the position that the elements described in any one of these various excerpts is a request for information and received from a user interacting with the server system through a client device, applicant respectfully requests that the basis for this position be explained in sufficient detail to allow Applicant to judge the propriety of continuing prosecution.

In the absence of such a showing, for the reasons discussed above and in the appeal brief filed July 7, 2008, Applicant respectfully submits that even if Woods and Copperman were combined, one of ordinary skill would not arrive at the recited subject matter. Claim 15 is thus not obvious over Woods and Copperman. Applicant thus respectfully requests that the rejections of claim 1 and the claims dependent therefrom be withdrawn.

Claim 47 was rejected under 35 U.S.C. § 103(a) as obvious over Woods, Copperman, and U.S. Patent No. 6,763,349 to Sacco (hereinafter "Sacco").

As amended, claim 47 relates to a computer-implemented method for extracting a subset of a document using a computer server system having one or more processors. The method includes receiving, at the server system, a request for information that describes a combination of two or more concept lists, wherein each concept list is defined by an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept, wherein the two or more concept lists are combined using an operation to define a target definition that is to be detected, receiving, at the server system, a description of a document region targeted for extraction, accessing a document stored in a document database using the server system, based on the target definition and the document regions targeted for extraction, the server system extracting one or more regions of the accessed document, and the server system outputting the extracted regions for use by the client device in response to the request for information. The request for information is received from a user interacting with the server system through a client device connected to the server system via a network.

As discussed previously, Woods and Copperman neither describe nor suggest that a request for information that describes a combination of two or more concept lists be received, as recited in claim 47. In this regard, as discussed above, Woods' requests for information are understood to be a single search query phrase consisting of one to many terms. Copperman's requests for information are an initial search query along with any subsequently selected "related features" that narrow the scope of the initial search query. In either case, the requests for information are not concept lists that are defined by an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept, much less a combination of two or more concept lists, as recited in claim 47.

Sacco does not remedy these deficiencies in Woods and Copperman. Instead, Sacco describes an iterative, taxonomy-driven process for browsing and retrieving information in large heterogeneous databases. *See, e.g., Sacco*, col. 1, line 7-10. In Sacco, a set of documents is classified under a taxonomy. *See, e.g., id.*, col. 2, line 50-53. Sacco's taxonomy "is usually a tree, but lattices (deriving from a concept having more than one father) are allowed." *See, e.g., id.*, col. 2, line 60-61.

The taxonomy can be displayed for a user with father-to-son relations and son-to-father relations (i.e., lists of sons and fathers) of each concept. *See, e.g., id.*, col. 3, line 21. A user can select concepts in the taxonomy, as well as Boolean operations for combining them. *See, e.g., id.*, col. 3, line 22-25. This process can be iterative (i.e., these steps can be repeated). *See, e.g., id.*, col. 3, line 27-28. A user "will then be presented with a reduced taxonomy for the selected set of documents, which can be iteratively further refined." *See, e.g., id.*, col. 2, line 14-16.

Although Sacco does indeed receive requests for information from a user that are not limited to the terms in Wood's search query phrases and Copperman's initial search query and any subsequently selected "related features," Sacco does not render requests for information that describes a combination of two or more concept lists obvious to those of ordinary skill. Instead, users in Sacco select concepts in a taxonomy that has been used to classify documents. Such a selection of concepts neither describes nor suggests that concept lists—defined by an origin concept, a relationship between the origin concept and an evaluated concept, and a distance representing a strength of the relationship between the origin concept and the evaluated concept—are received in a request for information. Instead, a father or son concepts (and Boolean operation) are selected by Sacco's users.

The present amendments to claim 47 further highlight the deficiencies of the present rejection. For example, claim 47 recites that a request for information that describes a combination of two or more concept lists each defined, e g., by a relationship between the origin concept and an evaluated concept and a distance representing a strength of the relationship between the origin concept and the evaluated concept is received from a user interacting with the server system through a client device connected to the server system via a network.

Since the relationships in Sacco's taxonomy are part of the taxonomy itself, they are not received as part of a request for information. Also, there are no strengths of relationships in Sacco's taxonomy. Accordingly, Sacco also fails to describe or suggest that strengths of relationships be received as part of a request for information.

Woods, Copperman, and Sacco all fail to describe or suggest that a request for information that describes a combination of two or more concept lists be received, as recited in claim 47. Thus, even if Woods, Copperman, and Sacco were combined, one of ordinary skill would not arrive at the recited subject matter. Accordingly, claim 47 is not obvious over Woods, Copperman, and Sacco. Applicant respectfully requests that the rejections of claim 47, and the claims dependent therefrom, be withdrawn.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply the Request for Continued Examination fee and any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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